



"ANNEX I"
APPROVAL REGISTRY OF REGULATED ARTICLES
FOR DIRECT USE AS FOOD AND FEED AND FOR PROCESSING
(As of August 28, 2018)

| Transformation Event | Introduced Trait and Gene | Date Approved/ Renewed | Safety Assessment | | Technology Developer | Other Countries with Similar Approval |
|----------------------|---|---------------------------|-------------------|------|--------------------------------------|---|
| | | | Food | Feed | | |
| 1. Soybean 305423* | <p>Introduced <i>gm-fad2-1</i> gene fragment provides seed with increased levels of monounsaturated (oleic) fatty acid and decreased levels of polyunsaturated fatty acids (linoleic and linolenic) and to a lesser extent, palmitic acid, via a mechanism of gene silencing.</p> <p>Introduced <i>gm-hra</i> gene encodes the GM-HRA protein conferring tolerance to ALS-inhibiting herbicides; it was used solely as a selectable marker, and does not provide a commercial level of herbicide tolerance.</p> | Sept. 9, 2013 | ✓ | ✓ | DuPont (Pioneer Hi-Bred Philippines) | Australia (Food), Canada, China, European Union, Japan, Malaysia, Mexico (food), New Zealand (food), Singapore, South Africa, South Korea (feed), Taiwan (food), United States of America |



*Biosafety permit was issued under Department of Agriculture, Administrative Order No. 8, Series of 2002

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| 2. Corn NK603* | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium</i> sp. CP4 strain which confers tolerance to the Roundup family of agricultural herbicides | Sept. 10, 2013 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Indonesia, Japan, Malaysia, Mexico (food), New Zealand (food), Paraguay, Russian Federation, Singapore, South Africa, South Korea, Taiwan (food), Thailand, Turkey (feed), United States of America, Uruguay, Vietnam |
| 3. Corn TC1507* | Contains <i>cry1F</i> and <i>pat</i> genes which confer resistance to certain lepidopteran pests such as the Asiatic corn borer and pink borer (<i>Sesamia</i> spp) and tolerance to glufosinate herbicides respectively | Oct. 7, 2013 | ✓ | ✓ | Dow AgroSciences LLC and DuPont (Pioneer Hi-Bred International Inc.) | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Indonesia, Japan, Malaysia, Mexico (food), New Zealand (food), Panama (food), Paraguay, Singapore, South Africa, South Korea, Taiwan (food), Turkey (feed), United States of America, Uruguay, Vietnam |
| 4. Canola Rt73* | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium</i> sp. CP4 strain and the <i>GOXv247</i> coding sequence from <i>Ochrobactrum anthropi</i> strain LBAA that confers tolerance to the Roundup family of agricultural herbicides | Oct. 22, 2013 | ✓ | ✓ | Monsanto Philippines | Australia (food), Canada, China, European Union, Japan, Mexico (food), New Zealand (food), Singapore, South Korea, Taiwan (food), United States of America |
| 5. Corn GA21* | Contains modified <i>epsps</i> gene from corn which confers tolerance to herbicides | Nov. 20, 2013 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Indonesia (food), Japan, Malaysia, Mexico (food), New Zealand (food), Paraguay, Russian Federation, Singapore, South Africa, South Korea, Taiwan (food), Thailand (food), Turkey (feed), United States of |

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| | | | | | | America, Uruguay, Vietnam |
| 6. Corn T25* | Contains <i>pat</i> gene from <i>Streptomyces viridochromogenes</i> strain Tu 494 for tolerance to glufosinate (phosphinotricin) herbicide | Dec. 5, 2013 | ✓ | ✓ | Bayer CropScience, Inc. | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, Singapore, South Africa, South Korea, Taiwan, Turkey (feed), United States of America, Vietnam |
| 7. Cotton 1445* | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium</i> sp strain, CP4 which confers tolerance to the Roundup family of agricultural herbicides | Dec. 5, 2013 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China (feed), Colombia, European Union, Japan, Mexico, New Zealand, Paraguay, South Africa, South Korea, Taiwan (food), United States of America |
| 8. Cotton 15985* | Contains the <i>cry2Ab2</i> and <i>cry1Ac</i> genes from <i>Bacillus thuringiensis</i> var <i>kurstaki</i> which encode proteins that convey protection from lepidopteran insect pests | Dec. 5, 2013 | ✓ | ✓ | Monsanto Philippines | Australia, Brazil, Burkina Faso, Canada, China, Colombia (food), European Union, Japan, Mexico (food), New Zealand(food) Singapore, South Korea, Taiwan (food), United States of America (food) |
| 9. Soybean A2704-12* | Contains <i>pat</i> gene from <i>Streptomyces viridochromogenes</i> which confers tolerance to glufosinate ammonium herbicide | Jan 23, 2014 | ✓ | ✓ | Bayer CropScience, Inc. | Argentina, Australia (food), Brazil, Canada, China, Colombia (feed), European Union, India, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, Singapore, South Africa, South Korea, Taiwan (food), Thailand (food), Turkey(feed), United States of America, Vietnam |
| 10. Cotton 531* | Contains <i>cry1Ac</i> gene from <i>Bacillus thuringiensis</i> var. <i>kurstaki</i> which confers resistance to lepidopteran pests | Feb. 5, 2014 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Japan, Mexico (food), New Zealand (food), Paraguay, Singapore, South Africa, South Korea, Taiwan (food), United States of America |

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| 11. Corn MON89034* | Contains two genes (<i>cry1A.105</i> and <i>cry2Ab2</i>) from <i>Bacillus thuringiensis</i> which protect the plant from Asiatic corn borer, common cutworm and corn earworm | Apr. 29, 2014 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia, Brazil, Canada, China, Colombia, European Union, Indonesia, Japan, Malaysia, Mexico (food), New Zealand (Food), Paraguay, Russian Federation (feed), Singapore, South Africa, South Korea, Taiwan (food), Thailand(food), Turkey (feed), United States of America, Vietnam |
| 12. Soybean MON 87708* | Contains <i>dmo</i> expression cassette derived from <i>Stenotrophomonas maltophilia</i> conferring tolerance to dicamba (3,6-dichloro-2-methoxybenzoic acid) herbicide | May 5, 2014 | ✓ | ✓ | Monsanto Philippines | Australia (food), Brazil, Canada, China, European Union, Indonesia (food), Mexico (food), New Zealand (2012), South Korea (feed), Taiwan (food), Turkey(feed), United States of America, Vietnam |
| 13. Soybean MON87705* | Contains <i>cp4 epsps</i> expression cassette as a selectable marker and a partial <i>fatb1-A</i> and <i>fad2-1A</i> suppression cassette from <i>Agrobacterium sp.</i> strain CP4 controlling the fatty acid profile in soybean seed | November 28, 2014 | ✓ | ✓ | Monsanto Philippines | Australia (food), Canada, Colombia, European Union, Indonesia (food), Japan, Mexico (food), New Zealand (food), Singapore, South Korea, Taiwan (food), Turkey (feed), United States of America, Vietnam |
| 14. Corn MON87427* | Contains the <i>cp4 epsps</i> gene derived from <i>Agrobacterium sp.</i> strain CP4 conferring tolerance to glyphosate herbicide | November 28, 2014 | ✓ | ✓ | Monsanto Philippines | Australia (food), Brazil, Canada, Colombia (food), Indonesia (food), Japan, Mexico (food), New Zealand (food), Singapore (Food), South Korea (food), Taiwan (food), United States of America, Vietnam |
| 15. Corn MIR162* | Contains two novel genes: <i>vip3Aa20</i> gene from <i>Bacillus thuringiensis</i> which confers resistance to lepidopteran pests and <i>pmi</i> gene from <i>Escherichia coli</i> encoding the enzyme phosphomannose isomerase present as a selectable marker | Feb 11, 2015 | ✓ | ✓ | Syngenta Philippines | Argentina, Australia (food), Brazil, Canada, China, /Colombia, European Union, Indonesia (food), Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, Singapore (food), South Africa, South Korea (feed), Taiwan (food), Turkey (feed), United States of America, Vietnam |

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| 16. Canola MON88302* | Contains cp4 <i>epsps</i> from <i>Agrobacterium tumefaciens</i> which decreases binding affinity for glyphosate, thereby conferring increased tolerance to glyphosate herbicide | April 24, 2015 | ✓ | ✓ | Monsanto Philippines | Australia, Canada, European Union, Japan, Mexico (food), New Zealand, Singapore (food), South Korea (feed), United States of America |
| 17. Soybean MON87769* | Contains Pj.D6D gene from <i>Primula juliae</i> and <i>Nc.Fad3</i> from <i>Neurospora crassa</i> - both desaturates certain endogenous fatty acids resulting in the production of stearidonic acid (SDA), an omega-3 fatty acid, and cp4 <i>epsps</i> gene from <i>Agrobacterium tumefaciens</i> which decreases binding affinity for glyphosate, thereby conferring increased tolerance to glyphosate herbicide | April 24, 2015 | ✓ | ✓ | Monsanto Philippines | Australia (food), Canada, Colombia, European Union, Indonesia (food), Japan (food), Mexico (food), New Zealand (food), Singapore (food), South Korea, Taiwan (food), United States of America, Vietnam |
| 18. Corn 5307* | Contains <i>cry1Ab</i> gene from <i>Bacillus thuringiensis var kurstaki</i> which produces crystal protein effective as insecticide against specific group of insect, <i>pat</i> gene from <i>Streptomyces viridochromogenes</i> which produces the enzyme, phosphinotricin-N-acetyl transferase that detoxifies glufosinate ammonium, <i>vip3Aa20</i> gene from <i>Bacillus thuringiensis</i> which encodes a vegetative insecticidal protein controlling several lepidopteran pest, <i>pmi</i> gene from <i>E. coli</i> which encodes the PMI protein for use as a selectable marker, <i>cry1F</i> gene from <i>Bacillus thuringiensis var. aizawai</i> strain PS811 which confers resistance to lepidopteran pests and <i>epsps</i> gene from <i>Zea mays</i> which confers tolerance to herbicides | June 11, 2015 | ✓ | ✓ | Syngenta Philippines | Australia (food), Brazil, Canada, China, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, South Korea (feed), Taiwan (food), United States America, Vietnam |
| 19. Sugarbeet H7-1 | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium sp.</i> Strain, CP4 which confers tolerance to glyphosate herbicide | July 28, 2015 | ✓ | ✓ | Monsanto Philippines and KWS SAAT AG | Australia (food), Canada, China, Columbia, European Union, Japan, Mexico (food), New Zealand (food), Russian Federation (food) South Korea (food), Taiwan (food), United States of America |
| 20. Cotton COT102 | Contains <i>vip3Aa19</i> from <i>Bacillus thuringiensis strain AB88</i> which confers resistance to feeding | September 9, 2015 | | | Syngenta Philippines | Australia, Canada, China, Colombia (food), Japan, Mexico, New |

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| | damage caused by lepidopteran insects by selectively damaging their midgut lining and <i>aph4</i> from <i>Escherichia coli</i> which acts as selectable marker | | ✓ | ✓ | | Zealand (food), South Korea, Taiwan (food), United States of America |
| 21. Soybean FG72* | Contains <i>2mepsps</i> from <i>Zea mays</i> which decreases binding affinity for glyphosate, thereby increasing tolerance to glyphosate herbicide and <i>hpdPF W336</i> from <i>Pseudomonas fluorescens</i> strain A32 which confers tolerance to HPPD-inhibiting herbicides by reducing the specificity for the herbicide's bioactive constituent | September 9, 2015 | ✓ | ✓ | Bayer CropScience | Australia (food), Brazil, Canada, Colombia (food), European Union, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, South Korea, Taiwan (food), United States of America |
| 22. Soybean CV127* | Contains gene <i>csr-2</i> from <i>Arabidopsis thaliana</i> which encodes the imidazoline herbicide tolerant acetohydroxyacid synthase (AtAHAS) | Oct. 29, 2015 | ✓ | ✓ | BASF Philippines, Inc. | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, India, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, South Africa, South Korea, Taiwan (food), Turkey (feed), United States of America |
| 23. Cotton MON88913* | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium</i> sp strain, CP4 which confers tolerance to the Roundup family of agricultural herbicides | Nov. 26, 2015 | ✓ | ✓ | Monsanto Philippines | Australia (food), Brazil, Canada, China, Colombia, European Union, Japan, Mexico (food), New Zealand (food), Singapore, South Korea, Taiwan (food), United States of America |
| 24. Soybean A5547-127** | Contains a synthetic phosphinothricin acetyltransferase (<i>pat</i> gene) from <i>Streptomyces viridochromogenes</i> expressing tolerance to glufosinate ammonium herbicide | February 1, 2017 | ✓ | ✓ | Bayer CropScience, Inc. | Argentina, Australia (food), Brazil, Canada, China, Colombia (feed), European Union, India, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, Singapore, South Korea, Taiwan (food), Turkey (feed), United States of America, Vietnam |
| 25. Corn MON88017** | Contains <i>cry3Bb1</i> gene from <i>Bacillus thuringiensis</i> which confers resistance to the corn rootworm, <i>Diabrotica</i> spp and <i>cp4epsps</i> gene from <i>Agrobacterium</i> sp. which confers tolerance to glyphosate | January 4, 2018 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Japan, Malaysia, Mexico (food), New Zealand (food), Russian Federation, Singapore, South Africa, South Korea, Taiwan (food), Thailand (food), Turkey (feed), United |

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| | | | | | | States of America, Vietnam |
| 26. Corn MON810** | Contains <i>cry1A(b)</i> gene from <i>Bacillus thuringiensis</i> var. <i>kurstaki</i> which confers resistance to corn borer | February 23, 2018 | ✓ | ✓ | Monsanto Philippines | Argentina, Australia (food), Brazil, Canada, China, Colombia, European Union, Japan, Malaysia, Mexico (food), New Zealand (food), Paraguay, Russian Federation, Singapore, South Africa, South Korea Switzerland, Taiwan (food), Turkey (feed), United States of America, Uruguay, Vietnam |
| 27. Corn MIR604** | Contains modified <i>cry3A</i> (mCry3A) from <i>Bacillus thuringiensis</i> subsp. <i>tenebriones</i> which confers resistance to corn rootworm | March 6, 2018 | ✓ | ✓ | Syngenta Philippines | Australia, Belarus/Kazakhstan, Indonesia, Taiwan (Food); Colombia, European Union, Mexico, Russia (Food and Feed); Korea (Food and Environment); Argentina, Canada, Japan, USA (Food, Feed and Environment); China (Food, Feed and Processing) |
| 28. Corn DAS59122** | Contains <i>cry34Ab1</i> and <i>cry35Ab1</i> from <i>Bacillus thuringiensis</i> , which confers resistance to certain coleopteran pests such as corn rootworm, <i>Diabrotica</i> sp. and the <i>pat</i> gene from <i>Streptomyces viridochromogenes</i> which provides tolerance to glufosinate ammonium herbicides | April 4, 2018 | ✓ | ✓ | DuPont Pioneer | Australia, Canada, China, Colombia, EU, Japan, Korea, Malaysia, Mexico, Philippines, Singapore, South Africa, Taiwan, United States (Food, Feed) |
| 29. Soybean MON87701** | Contains <i>cry1Ac</i> gene from <i>Bacillus thuringiensis</i> (<i>Bt</i>) subsp. <i>kurstaki</i> , which confers resistance to lepidopteran pests: velvetbean caterpillar (<i>Anticarsia gemmatilis</i>), soybean looper (<i>Pseudoplusia includens</i>), soybean axil borer (<i>Epinotia aporema</i>), and sunflower looper (<i>Rachiplusia nu</i>). | June 22, 2018 | ✓ | ✓ | Monsanto Philippines | Mexico, Russian Federation, Taiwan, Thailand, Indonesia (Food); Turkey (Feed); Philippines, China, EU, Singapore, Vietnam (Food and Feed); Japan (Cultivation); Argentina, Canada, USA (Food and Feed, and Cultivation) |
| 30. Soybean MON89788** | Contains <i>cp4epsps</i> coding sequence from <i>Agrobacterium</i> sp. Strain, CP4 which confers resistance tolerance to Round up family of agricultural herbicides | June 22, 2018 | ✓ | ✓ | Monsanto Philippines | Australia/New Zealand (Food, 2008); Canada (Food, 2007; Feed and Environment, 2007), China (Food and Feed, 2014); Colombia (Food, 2010; Feed, 2010); European Union (Food, Feed and Processing, 2008); India (Food, 2010); Indonesia (Food, 2011); Japan (Food, 2007; Feed, 2007; |

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| | | | | | | Environment, 2008); Korea (Food, 2009; Feed, 2009); Malaysia (Food, Feed and Processing, 2012); Mexico (Food and Feed, 2008); Russian Federation (Food, 2010; Feed, 2015); Singapore (Food and Feed, 2010); South Africa (Food and Feed 2013); Taiwan (Food, 2012; Feed, 2017); US (Food and Feed, 2007; Environment, 2007); Vietnam (Food and Feed, 2014) |
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